DENVER WATER

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North System Renewal Water Treatment Plant (NSRWTP)
Design Packages (DP) Request for Proposal (RFP) Informational Sheet

April 28, 2016

Q: What is the design procurement plan for the NSRWTP Project?

A: DW plans to release Preliminary Design Service RFPs in two phases. The first phase will include Design Packages (DP) #1-3 and the second will include DP #4-6. The packages include:

- DP#1 – Site-Civil Improvements
- DP#2 – Treatment Process Systems and Structures
- DP#3 – Electrical, Instrumentation & Control Systems
- DP#4 – Ancillary Treatment Process Systems and Structures
- DP#5 – Architectural and Building Systems
- DP#6 – Post-Tensioned Water Storage Tanks

Refer to DP descriptions (attached) for requirements of each DP. Firms will be shortlisted for interviews following DW review of the Proposals. Please refer to the schedule for procurement and performance included in the attachment.

Q: Can a design firm propose on more than one DP?

A: Yes. A design consultant can be selected for a maximum of two DPs; however, it is DW's intent to award DP #2 to a different firm than DPs #3 and 4 (Treatment Process Systems and Structures, Electrical, Instrumentation & Control Systems, and Ancillary Treatment Process Systems and Structures). See rules of engagement for more details.

Q: Can a design consultant be the Prime Consultant on one DP and a Subconsultant on other DPs?

A: The rules of engagement for the Prime consultant also apply to all Subconsultants, including Minority and Women-Owned Business Enterprise and Small Business Enterprise (MWBE and SBE) subconsultants. As such, a firm may serve as Prime or Subconsultant on up to two DPs, and the same rules of engagement apply.

Q: Do firms need to be listed as approved contractors on DW's General Engineering Services on-call to submit a proposal?

A: No. The DP RFP will be open to all firms meeting the minimum qualifications listed in the RFP. A list of pre-approved specialty design Subconsultants may be provided, when applicable.

Q: What is the capital budget estimate for the NSRWTP?

A: Approximately $400M based on conceptual opinion of probable costs developed in 2014.

Q: Can the scheduled startup date of 2023 be expedited with design and construction efficiencies or is 2023 a firm date?

A: Yes. DW's goal is to accelerate the 2023 delivery date. DW will work with the OR, Construction Manager-at-Risk (CMAR), and selected design consultants to finalize the delivery schedule during Preliminary Design.

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Q: Will the Designers be required to have Project Management Professional (PMP) certification through the Project Management Institute (PMI)?

A: DW continues to place strong emphasis on PM training and certification and will expect the Design Firms' Project Managers to have PM training. Firms that propose a Project Manager with PMI certification will receive higher scores than those without a PMP.

Q: What are the capacity and conceptual process design of the NSRWTP?

A: Initial capacity is 150 MGD, expandable to 250 MGD. The facility must be capable of effective operation down to 10 MGD. The concept design includes conventional treatment with independent treatment trains including high-rate settling, dual-media filtration, clearwell storage and accommodations for future advanced treatment unit processes. A modular design that allows for unit processes to be removed from service while the plant remains functional is a key goal for the NSRWTP.

Q: What will be the role of the expert Technical Panel?

A: The Technical Panel members will be selected following completion of the DPs procurement process. DW reserves the right to select qualified members for the Technical Panel regardless of the member firm's association with the NSRWTP Project team. It will comprise a third-party panel of design, construction, safety, and operations experts to provide value engineering (VE), design standards input, and design feedback regarding functionality and operability of the NSRWTP Project design.

Q: What is the CMAR's role during design?

A: The CMAR's role during design will include attendance at design meetings, constructability, safety, and VE reviews, estimating, scheduling and construction packaging/phasing assistance, and providing input regarding construction delivery and procurement methods.

Q: Can a design consultant be on a DP team and a CMAR team?

A: No. Any involvement on a DP, whether in a Prime or Subconsultant capacity, precludes the selected firm from teaming on the CMAR and vice versa.

Q: With multiple design consultants, the performance of one design consultant could impact other design consultants. Who is responsible for the costs associated with modifications due to lack of performance by another design consultant?

A: Cost allocation will be determined by DW based on an evaluation of the timing and cause of modifications, the impact to the other design consultants, and what is considered reasonable and customary. DW and the OR will provide ongoing quality assurance throughout the design process to mitigate impacts of one DP on the others.

Q: What type of co-location is expected for the DP firms during design phase?

A: No co-location is anticipated during the Preliminary Design Phase. DW expects to work with the selected designers and OR early in Preliminary Design to investigate the benefits and feasibility of co-locating key project staff during Final Design.

Q: What is the DP firm's responsibility with respect to permits?

A: Each DP firm's responsibility with respect to permits will be identified in that DP's Scope of Work, which will be issued with the RFP. The selected DP firm will be responsible for obtaining design permits related to its DP. The CMAR will be responsible for obtaining all construction permits.

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Q: With multiple design consultants, how does DW intend to manage the quality and standards for development of specifications and drawings?

A: Each DP proposer will be required to identify an AutoCAD Lead Coordinator, who will be responsible for the versioning and control of AutoCAD files, as well as initial development of AutoCAD standards for that DP's applicable software package(s), working in collaboration with other DP consultants' AutoCAD Lead Coordinators and DW/OR staff. Each DP proposer will also be required to identify a Specifications Coordinator, who will be responsible for the development and coordination of NSRWTP Project specifications standards, working in collaboration with other DP consultants' Specifications Coordinators and DW/OR staff.

Q: How will professional liability be established for processes or buildings designed by multiple design consultants, specifically the modification of the 3D model?

A: Generally, the firm selected for the Treatment Process Systems and Structures DP (DP #2) will communicate design requirements to the Ancillary Treatment Process Systems and Structures DP (DP #4), and will be wholly responsible for the NSRWTP's process performance. The firm selected for the Architectural and Building Systems DP (DP #5) will be responsible for the Administration Building and related work spaces. The firm selected to deliver the Electrical, Instrumentation & Control Systems DP (DP #3) will be responsible for coordination of startup and commissioning activities, working in close collaboration with the two Treatment Process Systems DPs (DPs #2 and 4) firms.

Q: Which design consultant will be responsible for the coordinating the development of the 3D model and integrating model information from the other design consultants?

A: The Treatment Process Systems and Structures DP (DP #2) design consultant will develop the 3D model for the primary water treatment process and be responsible for incorporating the ancillary treatment facilities and discipline-specific design information. The Site Civil Improvements DP (DP #1) will develop the 3D model for the site, with transfer of responsibility starting approximately 5 feet from the walls of the buildings and tanks.

Q: Can the design consultants propose to expand or reduce the scope of the DP for items not specifically mentioned in the scope of work?

A: Consultants should price the scope of work as identified for comparison purposes. Additional scope items proposed in your approach may be priced as add-on tasks, but should not be included in the base estimate and should consider the Scopes of Work included within other DPs.

Q: The costs submitted for each DP proposal are only for development of the 20% design. Will new proposals be requested for the final design phase?

A: DW's intention is to initially contract the design firms selected for each package through preliminary design (20%). Depending on performance, the contracts may be amended to include Final Design and subsequently, Engineering Services during Construction, subject to Board approval.

Q: Who will be responsible for overall quality control and the final issued for construction drawings with multiple design consultants?

A: Each design consultant will be responsible for providing quality control for their DP. The Treatment Process Systems and Structures (DP #2) design firm will be responsible for coordinating the overall process performance and verifying design conflicts in the 3D model are resolved. DW and the OR will perform ongoing Quality Assurance checks of design files in progress, as well as performing quality control and standards conformance checks on milestone deliverables.

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Q: What is the role of the OR during the design development?

A: The OR serves as an extension of DW's staff and will provide assistance with project management and controls, design oversight quality control and quality assurance, and overall coordination with and between the design firms.

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DESIGN PACKAGES

DRAFT

Package Includes:

1. Site & Civil Improvements	2. Treatment Process Systems & Structures	3. Electrical, Instrumentation & Control Systems	4. Ancillary Treatment Process Systems & Structures	5. Architectural & Building Systems	6. Post-Tensioned Water Storage Tanks	7. Moffat Facility Modifications
Site/Civil Survey Highway 93 Improvements Geotech Hydraulics/HGL Yard Piping Site Finishes 3D Base Map	Headworks Floc/SED Filters DCB Structures Hydraulics/HGL Specialty Valves Large Pumps	I&C Communication Security Plant Wide Electrical Distribution Motor Control 120v Circuits	Pre-Chemical Post-Chemical Backwash & Solids Handling Backwash Pump Station Structures	HVAC Plumbing Fire Protection Admin Bldg Interior Finishes Exterior Details Operation Center Warehouse/Shops	Clearwells	Bypass Treatment Demolition Conduit 25 Headworks Conversion of DCB to Clearwell

Package Requirements:

1. Site & Civil Improvements	2. Treatment Process Systems & Structures	3. Electrical, Instrumentation & Control Systems	4. Ancillary Treatment Process Systems & Structures	5. Architectural & Building Systems	6. Post-Tensioned Water Storage Tanks	7. Moffat Facility Modifications
• CDOT design experience • Jefferson County permitting and coordination • Water treatment plant experience, hydraulics, HGL • Site civil design, including yard pipe, grading, site roads, and drainage • Roadway & site survey • Geotechnical • Landscaping, fencing & site signage	• Hydraulics/HGL • 3D/4D Models • Plant startup & commissioning • Water-bearing structures & building structural design • Pump design • High-rate filtration • Standards setting • Net-zero energy analysis	• Electrical supply & distribution • Treatment plant electrical, I&C • Water treatment plant security • Communications systems • Coordination with Xcel • Standards setting • Treatment plant startup & commissioning	• 3D/4D Models • Plant startup & commissioning • Water-bearing structures & building structural design • Pump design • Backwash & solids handling • Chemical feed	• Architectural for treatment plants & industrial facilities • HVAC, plumbing, & fire protection for industrial/ treatment facilities • Interior tenant improvements • Jefferson County building department permitting & coordination • 3D/4D Models • Standards setting	• Post-tensioned tank design • Pre-qualified with Denver Water	• Demolition design • Water-bearing structure design • Site/civil design including yard pipe, grading, site roads, and drainage • Water treatment plant experience, hydraulics & bypass design • Landscaping • Treatment plant electrical, I&C
MWBE Goal	**MWBE Goal**	**MWBE Goal**	**MWBE Goal**	**MWBE Goal**	**MWBE Goal**	**MWBE Goal**
8-15%	2-5%	4-8%	2-5%	8-12%	2-4%	8-10%

*No goals have been set for SBE participation; however, engagement of small business is encouraged.

Preliminary Estimate Percentage of $400 Million Capital Cost by Package:

1. Site & Civil Improvements	2. Treatment Process Systems & Structures	3. Electrical, Instrumentation & Control Systems	4. Ancillary Treatment Process Systems & Structures	5. Architectural & Building Systems	6. Post-Tensioned Water Storage Tanks	7. Moffat Facility Modifications
18%	29%	24%	10%	9%	7%	3%

Estimated Procurement & Performance Schedule:

Task	Design Packages 1-3	Design Packages 4-6	Design Package 7
Procurement			TBD
RFP	May 17, 2016	July 15, 2016	
Mandatory Pre-Proposal Meeting	May 26, 2016	July 21, 2016	
Proposals Due	June 16, 2016	August 15, 2016	
Interview Shortlisted Firms	July 11 - July 13, 2016	August 30 - September 1, 2016	
Design Package Selection	July 14, 2016	September 2, 2016	
Board Approval of Design Package Contracts	August 10, 2016	October 12, 2016	
Design			
Preliminary (0-20%)	August 2016 - February 2017		
Final (30 - 100%)	March 2017 - 2018-2021 (varies)		
Construction	2018 - 2023		

Rules of Engagement

1. Firms are eligible to win up to two (2) Design Packages (regardless of prime or sub role).
2. The firm selected for Design Package 2 is ineligible to win Design Packages 3 or 4.
3. Firms pursing multiple Design Packages must illustrate discrete staff/resources for each Design Package.
4. PM & Design Leads must be consistent throughout the project unless approved in writing by Denver Water.

JACOBS / CDM Smith